

Title (en)

Microprocessor for executing enciphered programs.

Title (de)

Mikroprozessor zur Durchführung verschlüsselter Programme.

Title (fr)

Microprocesseur pour effectuer des programmes chiffrés.

Publication

**EP 0008033 A1 19800220 (EN)**

Application

**EP 79102603 A 19790723**

Priority

US 92758078 A 19780724

Abstract (en)

A microprocessor (16) for executing computer programs (12) which are stored (12) in cipher to prevent software piracy. Such a crypto-microprocessor (16) deciphers (4) the enciphered program (12) piecemeal as it executes it (67), so that a large enciphered program (12) can be securely executed without disclosing the deciphered program or associated data to persons who have access to the wiring of the computer in which the crypto-microprocessor (16) is a component. Various methods of deciphering may be used including methods which result in the cipher of a byte being a complex function of the byte's address in memory. Each crypto-microprocessor chip (16) may use a unique cipher key (5) or tables for deciphering the program (12), so that a program that can be executed in one chip cannot be run in any other microprocessor.

IPC 1-7

**G06F 13/00**; **G11B 15/02**; **G11C 9/00**; **H04K 1/00**; **H04L 9/00**

IPC 8 full level

**G06F 12/14** (2006.01); **G06F 13/00** (2006.01); **G06F 21/00** (2006.01); **G06F 21/12** (2013.01); **G06F 21/14** (2013.01); **G06F 21/22** (2006.01); **G11B 15/02** (2006.01); **H04K 1/00** (2006.01); **H04L 9/00** (2006.01); **G06F 1/00** (2006.01)

CPC (source: EP)

**G06F 12/1408** (2013.01); **G06F 21/6209** (2013.01); **G06F 21/6281** (2013.01); **G06F 2221/2107** (2013.01)

Citation (search report)

- US 4120030 A 19781010 - JOHNSTONE RICHARD
- US 3958081 A 19760518 - EHRSAM WILLIAM FRIEDRICH, et al
- US 3798359 A 19740319 - FEISTEL H
- DE 2822522 A1 19781207 - CII HONEYWELL BULL
- DE 2717654 A1 19771110 - IBM
- GB 1539356 A 19790131 - IBM
- GB 1393920 A 19750514 - IBM
- [X] ELEKTRONIKER, vol. 16, no. 3, 1977 Aarau, F. FURRER "Codierung zur Geheimhaltung einer Nachrichtenerübertragung", pages EL1 - EL7

Cited by

GB2165377A; GB2149944A; FR2542471A1; EP0186981A3; GB2122777A; EP0583140A1; GB2154034A; US4823308A; DE3512341A1; EP3855307A1; GB2146149A; US4550350A; DE3432721A1; EP0184023A1; EP0449256A3; US5214697A; EP0089876B1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LU NL SE

DOCDB simple family (publication)

**EP 0008033 A1 19800220**; **EP 0008033 B1 19830511**; AT E3338 T1 19830515; CA 1147823 A 19830607; DE 2965365 D1 19830616; JP S5518797 A 19800209

DOCDB simple family (application)

**EP 79102603 A 19790723**; AT 79102603 T 19790723; CA 330777 A 19790628; DE 2965365 T 19790723; JP 9249179 A 19790720